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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,681	04/16/2004	Cesur Celik	7012-X04-002	9588
27317	7590	08/09/2006	EXAMINER	
FLEIT KAIN GIBBONS GUTMAN BONGINI & BIANCO			MAI, NGOCLAN THI	
21355 EAST DIXIE HIGHWAY			ART UNIT	
SUITE 115			PAPER NUMBER	
MIAMI, FL 33180			1742	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/826,681	Applicant(s) CELIK ET AL.	
	Examiner Ngoclan T. Mai	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,8-11,14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) 8-11,16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,14 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-4, 8-11, 14, 16-21 are pending per amendment filed 7/3/06. Claims 8-11 and 16-17 drawn to non-elected species and are withdrawn from consideration. Upon further consideration the examiner reinstates the rejection of the claims per paragraph 9 of office action mailed 3/14/05 in view of Kudas et al. Following is the reason to reject the claims.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4, 16, 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11124606 A2 in view of JP 411067588 and Kudas (U.S. Patent No. 6,316,100) (art of record).

JP 11124606 A2 discloses nickel-copper alloy powder containing 5-60% of copper (40-95% Ni) and having mean particle diameter of 0.1 to 5 microns. The nickel-copper alloy powder taught is for use as material for an internal electrode of a multilayer ceramic capacitor.

The difference between claim 1 and JP 11124606 A2 is that JP 11124606 A2 does not teaches an alloy powder which contains Cr in the amount as claimed and is comprised of particles substantially spherical having average particle size from 25 to 700 nm (0.02-0.70 microns).

JP 411067588 discloses powder for an internal electrode of a laminated (i.e., multilayer) ceramic capacitor comprising Cu, Ni or Ni-Cu alloy as the main component of the electroconductive material and one or more from P, Cr, Fe, Al, Si, Co, W, Mn, Sn, Mo and B as auxiliary components. JP 411067588 teaches the auxiliary component is added to the Cu, Ni or alloy thereof to increase the resistivity of the internal electrode, see paragraphs [0009]-[0010]. JP 411067588 teaches 99.9-70 wt% Ni is preferable in the Ni-cu alloy and the auxiliary components are added in a range preferably 0.01-30 wt% to the total amount of electroconductive material [0013]-[0014].

Thus it would have been obvious one of ordinary skill in the art at the time the invention was made to include in the Ni-Cu alloy powder taught JP 11124606 at least one auxiliary components as

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taught by JP 411067588 for the noted improvement. It would have been obvious to select any auxiliary components, including the claimed Cr, from the broader auxiliary components disclosed by JP 411067588 because any of auxiliary components in the entire disclosed range can be added to raise the resistivity of the electrode. --- Note: Even if a reference teaches a preferred range within a broader range, it still does not "teach away" from the claimed invention. See MPEP 2123.

As for the alloy powder being spherical in shape, Kudas teaches nickel particles having substantially spherical in shape are advantageous because they dispersed more readily in a paste or slurry and impart advantageous flow characteristics to paste composition for making internal electrode, col. 5, line 32-431 and col. 38, lines 62-67. Thus it would have been obvious to one ordinary skill in the art at the time the invention was made to form the alloy powder taught by JP 11124606 with the inclusion of auxiliary components as taught by JP 411067588 into particles having substantially spherical in shape because employing electroconductive material powder having particles of this shape would have the advantages as noted by Kudas when use to form paste or slurry for making internal electrode.

Kudas also teaches electroconductive powder having average particle size from 0.3 to 0.8 micron (300-700 nm) is useful in microelectronic application where conductive metal powders are dispersed in a thick film paste for making internal electrodes of multilayer ceramic capacitors. Thus it would have been obvious to select the alloy powder taught by the references with particles in the size range as taught Kudas for making internal electrode.

Regarding claims 2-6, to select more than two auxiliary components including Cr as disclosed by JP 411067588 would have been obvious to one of ordinary skill. Determination of an optimum or preferred amount of the auxiliary components to be included in the alloy of JP 11124606 would have been obvious. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable range by routine experimentation." See *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955); *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969); *Merck & Co. Inc. v. Biocraft Laboratories Inc.*, 874 F.2d 804, 10 USPQ2d (Fed.cir), cert. denied, 493 U.S. 975 (1989); *In re Kulling*, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990);

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and *In re Geisler*, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997). Furthermore, the specification contains no disclosure of either the critical nature of the claimed thickness range or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in the claim, the applicant must show that the chosen dimensions are critical. *In re Woodruff*, 919 F.2d, 1575, 16 USPQ2d, 1934 (Fed. Cir. 1990).

As for claims 18-19 while the references do not teach the temperatures at which onset oxidation occurs, however, it appears the claimed property is material property. Consequently, the property as recited in the instant claims would have inherently possessed by the teachings of the cited references. Therefore, the burden is on the applicant to prove that the product of the prior art does not necessarily or inherently possesses characteristics attributed to the claimed product. *In re Spade*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990), *In re Best*, 195 USPQ 430 and MPEP § 2112.01.

As for claim 21, JP 11124606 A2 does not teach the alloy further include at least 15 ppm Zr. However as disclosed by the applicant in (0043) the presence of Zr in the alloy is due to the employment of crucible used to make the metal, which is made from zirconium dioxide. The presence of zirconium in the alloy powder therefore is only an impurity. Kodas taught in the same field of endeavor discloses the level of impurity such as zirconia in Ni particle is preferably not greater than 0.01 atomic percent (<100 ppm), col. 38, lines 37-45. Thus it would have been obvious to one of ordinary skill in the art the Ni alloy powder of JP 11124606 A2 be made so that the presence zirconium impurity is not higher than 0.01 atomic percent as taught by Kodas. Note that the difference in degree of purity itself does not predicate patentability. *In re King*, 43 USPQ 400 and *In re Merz*, 38 USPQ 143. Changing form, purity, or other characteristic of an old product does not render the novel form patentable where the difference in form, purity or characteristic was inherent in or rendered obvious by the prior art. *In re Cofer*, 354 F.2d 664, 148 USPQ 268 (CCPA 1996).

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Conclusion

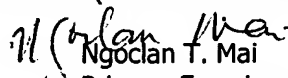
4. **THIS ACTION IS MADE FINAL.** (Note that should the above rejection introduce in the previous office action, the that rejection would still be made final). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoclan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 9:30-6:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ngoclan T. Mai
Primary Examiner
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